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FEATURE

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A ROOT CROP REVIVAL IN CAMEROON

by JEAN-MARC FLEURY

Some cassava seedlings disappeared from the Babungo Research Station in northwestern Cameroon at the end of last year. It couldn't have made the scientists responsible for root crop varieties any happier. "It's an obvious sign that farmers appreciate our new varieties," commented Simon N. Lyonga, an agronomist at the Agronomic Research Institute.

Because Mr Lyonga and his team want to supply small farmers with improved root crop varieties, he sees nothing amiss in the farmers' "spontaneous adoption" of new seed stock, but he would really prefer them to be a little more patient. After all, the testing of some 50,000 strains that has gone on since 1975 has already led to the identification of about 40 promising "clones". Seed multiplication is to begin next year, and distribution could follow in 1982.

The program concentrates mainly on cassava because it is attracting more and more interest among farmers. ARI's researchers are developing three major types: a thickly branched, hardy variety giving maximum yield in single-crop farming; varieties with fewer branches for intercropping with sweet potatoes, maize, or cowpeas; and very leafy types for the production of vegetable greens.

In effect, agronomic research now views cassava as two plants in one: a root crop rich in glucides, and a leaf vegetable that provides protein, vitamins and minerals. At the International Institute for Tropical Agriculture (IITA) in Ibadan, Nigeria -- which supplies the Cameroonian program with seed -- yields of 12 to 14 tons of vegetable greens per hectare have been obtained when the foliage was harvested every three months. The trade-off was a 15 to 30 percent drop in the yield of tubers.

Because of the close ties between Cameroonian researchers and those of IITA, farmers in Cameroon benefit from the findings of the Institute. They also have relatively rapid access to the thousands of strains developed in Ibadan every year, a number of which will suit their needs. The same relationship between the Institute and the Cameroonian program exists with respect to research on the sweet potato, whose production is also increasing rapidly in Cameroon.

The Cameroonian team has collected some 60 local varieties of sweet potato that have been evaluated along with some 3,000 others received from IITA. Particular importance is attached to the taste of this crop, whose sweetness many find unpleasant at first. But, according to Mr Lyonga, people have quickly grown accustomed to it, and there are now not enough research stations to meet the demand for seed stocks. This tuber, richer in protein than cassava, can be grown relatively easily. Its vines quickly cover the ground when stem cuttings are planted in fields after the maize harvest. In the spring of 1980, the Ekona Station, at the foot of majestic Mount Cameroon, distributed cuttings of the TIb 1 variety to farmers. Yields of this variety have exceeded 40 tons per hectare in Ekona.

In the root crop program, cassava and sweet potato are expected to make the most rapid increase in production. One reason is the destruction of cocoyam crops by a disease affecting the corms, or roots, of this very popular tuber.

No one has yet positively identified the agent responsible for cocoyam root rot, although Samuel Nzietcheung, a plant pathologist at the Nyombé Station, suspects - as do most experts - a parasitic fungus present in the soil. White cocoyams, preferred by connoisseurs, are those that are most susceptible to root rot. Those with red tubers are more resistant, and thus Mr Nzietcheung has begun testing seed produced by crossbreeding red and white varieties.

In mid-January, some young plants, barely out of their seed trays and having managed to resist giant snails and millipedes, were already showing signs of great vigour. Through repeated crossbreedings, he hopes to produce white cocoyams that are as resistant as the red varieties. Meanwhile, varieties that appear the most resistant are being distributed to farmers — last year, 43 tons of cocoyam seed found takers in a very short time.

While awaiting the development of new varieties that will boost cocoyam production, consumers are turning to rice. This involves a major change in eating habits as in many regions, such as the Centre-South province, people normally eat two daily meals of cocoyam.

Although its objective is increased yields for small farmers, the root and tuber program also offers many young Cameroonians a unique opportunity to acquire training in research. The program funds made available by Canada's International Development Research Centre (IDRC) and Belgium's Administration générale de la coopération au développement finance the work of two experienced agronomists from Europe stationed in Cameroon, and support training of Cameroonian specialists. More than a half-dozen technicians have taken professional development courses at IITA in Ibadan. At a more advanced level, a number of agronomists, plant geneticists, and plant pathologists have received or will receive their MAs or PhDs, some at IITA, others at Belgian or American universities. Within a few years, they will be able to assume full responsibility for the program, aiming to develop new varieties of the root and tuber crops, the food staple of humid, tropical regions.

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